

Dear Sirs,

I am an unlicensed operator (Wireless ISP) as well as a licensed ham operator. I have also spent many years operating a small consumer electronics business.

I believe the ISM rules have been a great boon to innovation, industry and the consumer. I'd like to offer a couple thoughts.

1: The spectrum currently available provides limited opportunity to reach a broad range of consumers, especially in rural areas and older suburban areas where foliage and long distances can block access to what is currently the only option available for broadband internet access. Most are in areas not now served by DSL or cable access, nor are likely to be in the future.

I would favor using the TV bands as there is a lot of spectrum our area that could be utilized. Opening up this spectrum would allow providing service to business and households currently not reachable. Manufacturers of equipment for use in this spectrum could easily solve the issues of operating only on unused channels as well as picking a channel that has guardband channels on each side.

2: Power levels in rural areas should be allowed to be higher than urban areas. A typical cell site in our area with a 10 mile radius might only have 200 - 500 possible users. To extend a site's coverage to this extent will require sufficient power as well as a spectrum frequency that has non line-of-sight capabilities. TV bands would allow this.

3: A 6mhz wide TV channel can provide plenty of room for decent bandwidth for digital data. In our area, using one TV channel with a guard channel on each side would allow 7-10 channels or more for use.

4: The commission should specify the power and interference levels, and the channel widths and leave the innovation of the protocols and delivery mechanisms to the radio manufacturers.

Under the current ISM rules, small businesses such as ours all across the nation have been able to provide connectivity to areas and users that licensed spectrum holders have deemed unprofitable/unserviceable. Expanding the unlicensed spectrum will ensure that growth can continue.

Respectfully,  
Kerry Penland